



**NTP**  
National Toxicology Program

# **The National Toxicology Program Update**

**Board of Scientific Counselors Meeting  
November 20, 2008**

**John R. Bucher, Ph.D.**

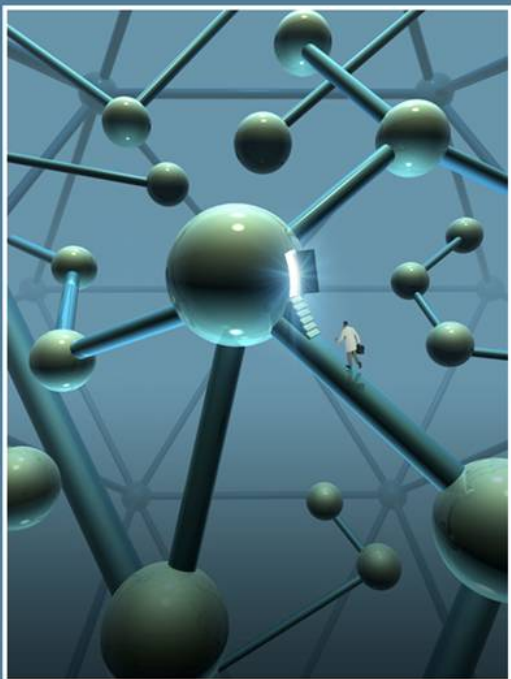
**Associate Director, NTP**

**National Institute of Environmental Health Sciences**



# NIH Research Festival October 14 - 17, 2008

Clinical Center • Natcher Conference Center



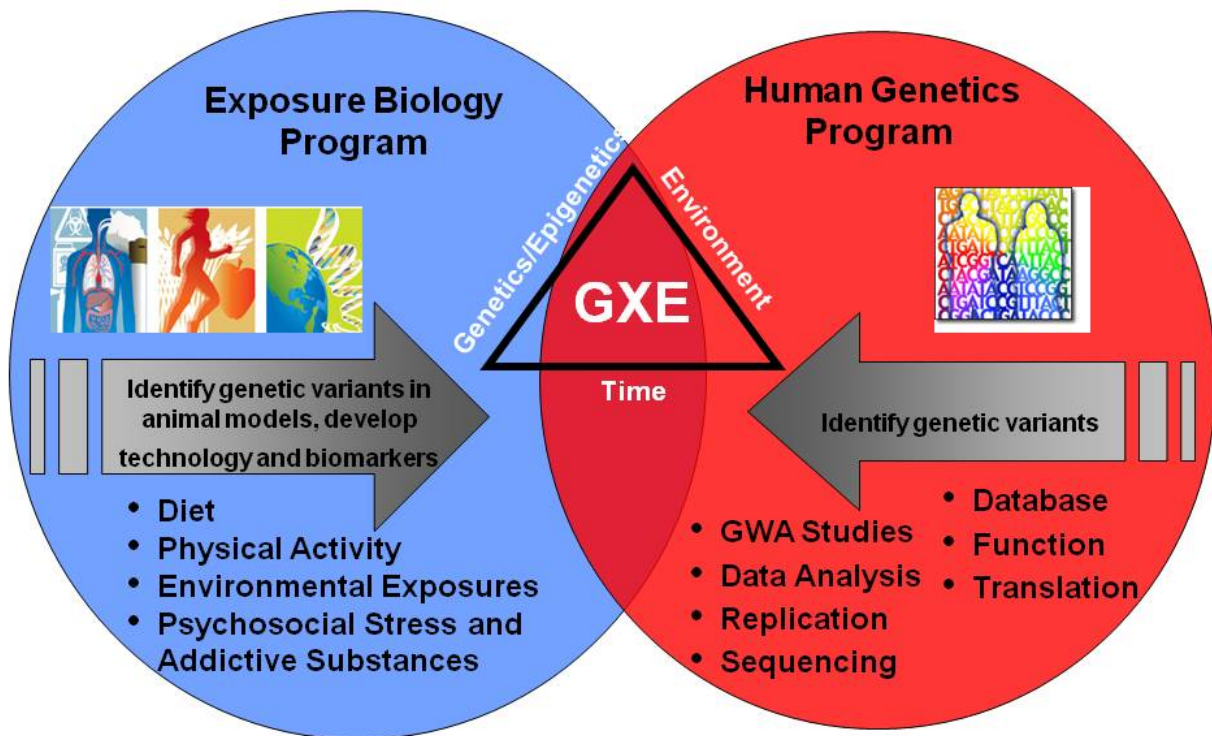
Genetic Susceptibility – The Link  
between Environmental  
Exposure and Human Disease

“Trans-NIH Research: Scientific  
Collaboration for the 21st Century”

Natcher Conference Center  
Balcony B  
2-4 PM

# The Genes, Environment, and Health Initiative

## *Genetic Susceptibility - Linking Exposure to Disease*





## **"Genetic Susceptibility – The Link between Environmental Exposure and Human Disease"**

- Steve Kleeberger, Ph.D., NIEHS, NIH

*Genetic susceptibility to environmental lung disease: a translational investigation*

- Kent W. Hunter, Ph.D., NCI, NIH

*Inherited susceptibility to breast cancer progression and metastasis*

- Karlyne M. Reilly, Ph.D., NCI, NIH

*The interaction of genetics and epigenetics in susceptibility to NF1-associated nervous system tumors*

- June Dunnick, Ph.D., NTP, NIEHS, NIH

*Studies of environmental and genetic factors in cardiac disease using mouse model systems*

- John E. (Jef) French, Ph.D., NTP, NIEHS, NIH

*Genetic Susceptibility to DNA Strand Break Damage, Loss of Heterozygosity (Genomic Instability), and Cancer*



QuickTime™ and a  
TIFF (LZW) decompressor  
are needed to see this picture.

**Workshop Organizing Chairs:**

- Darlene Dixon
- Mark Cesta

**Co-Organizers:**

- Ron Herbert
- Dave Malarkey



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## High Throughput Screening Approaches for Toxicology

### Presentations by:

- ABS, Inc.
- ACEA Biosciences
- ADMET Technologies
- AnaSpec
- Attagene, Inc.
- Biolog, Inc.
- BioSeek, Inc.
- Cellumen, Inc.
- CellzDirect
- CNRS
- DiscoverRx Corporation
- GeneGo, Inc.
- HemoGenix, Inc.
- In Vitro ADMET Laboratories LLC
- Invitrogen Corporation
- Kyoto University
- Meso Scale Discovery
- NovaScreen Biosciences
- Odyssey Thera
- PerkinElmer LAS
- Phylionix
- Promega Corporation
- Rensselaer Polytechnic Institute and UC Berkeley
- Seahorse Bioscience
- Stemina Biomarker Discovery, Inc.
- VistaGen Therapeutics, Inc.





## Center for the Evaluation of Risks to Human Reproduction

Provides expert assessments of adverse effects on reproduction and development caused by agents in the environment





## **NTP CERHR Bisphenol A Review Update**

- Board of Scientific Counselors peer review draft NTP Brief, June 11, 2008
- Final NTP-CERHR Monograph on Bisphenol A issued September 3, 2008
  - NTP Brief on Bisphenol A
  - CERHR Expert Panel Report on Bisphenol A
  - Public comments and peer review report on bisphenol A
- NTP issues request for information- Ongoing research and research needs for biological effects of exposure to bisphenol A
  - Released October 21, 2008
  - Closing date December 1, 2008
- Consideration of studies to support PBPK models in rodents and non human primates, TSSRC, November 18, 2008



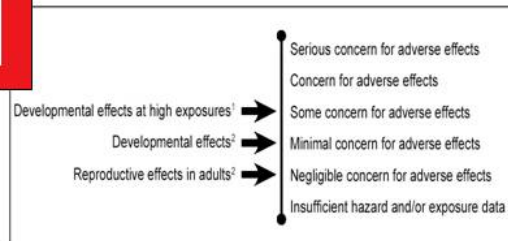


## NTP-CERHR Monographs



- Reevaluation of Genistein and Soy Formula, request for comments and expert panel member nominations, October 2, 2008

Figure 3. NTP conclusions regarding the possibilities that human development or reproduction might be adversely affected by exposure to DBP





## **Criteria for Evaluating Outcomes of Non-Cancer Studies**

- Immunotoxicology Criteria Work Group, August 13-14, 2008, in Crystal City
- Reproductive and Developmental Criteria Work Group, September 10-11, 2008, in Durham
- Discussion and vote by the NTP Board of Scientific Counselors, today
- Presentation of criteria at Society of Toxicology meeting in Baltimore, March 2009
- Put into practice, evaluate, refine



## In Progress

- Report on Carcinogens
  - Expert panel- captafol, o-nitrotoluene - October 15-16, 2007
  - Expert panel- aristolochic acids, riddelliine - January 24-25, 2008
  - Expert panel- styrene - July 21-22, 2008
  - Expert panel- cobalt-tungsten carbide powders and hard metals, December 9-10, 2008
  - Peer review of draft RoC substance profiles - February 24, 2009
- Technical Reports - February 25, 2009
  - Beta-myrcene
  - 3,3',4,4'-Tetrachloroazobenzene
  - Androstenedione
  - 2,3',4,4',5-Pentachlorobiphenyl
  - Tetralin
  - Goldenseal root powder